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|---|--|--|
| <b>TRANSMITTAL LETTER TO THE UNITED STATES<br/>DESIGNATED/ELECTED OFFICE (DO/EO/US)<br/>CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>   |  | ATTORNEY'S DOCKET NUMBER<br><b>514572001800</b>                      |
| INTERNATIONAL APPLICATION NO.<br><b>PCT/CN2003/000335</b>   |  | U.S. APPLICATION NO. (if known, see 37 CFR 1.5)<br><b>10/559,951</b> |
| INTERNATIONAL FILING DATE<br><b>9 May 2003</b>  |  | PRIORITY DATE CLAIMED<br><b>9 May 2003</b>                           |
| TITLE OF INVENTION<br><b>METHODS AND COMPOSITIONS FOR OPTIMIZING MULTIPLEX PCR PRIMERS</b>  |  |  |
| APPLICANT(S) FOR DO/EO/US<br><b>Shengce TAO et al.</b>  |  |  |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:   |  |  |
| 1. <input type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.   |  |  |
| 2. <input checked="" type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.  |  |  |
| 3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.           |  |  |
| 4. <input type="checkbox"/> The US has been elected (Article 31).   |  |  |
| 5. <input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c)(2))   |  |  |
| a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).   |  |  |
| b. <input type="checkbox"/> has been communicated by the International Bureau.  |  |  |
| c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).  |  |  |
| 6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).  |  |  |
| a. <input type="checkbox"/> is attached hereto.   |  |  |
| b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).  |  |  |
| 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))  |  |  |
| a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).  |  |  |
| b. <input type="checkbox"/> have been communicated by the International Bureau.   |  |  |
| c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.   |  |  |
| d. <input type="checkbox"/> have not been made and will not be made.  |  |  |
| 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).   |  |  |
| 9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).  |  |  |
| 10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).                             |  |  |
| <b>Items 11 to 20 below concern document(s) or information included:</b>  |  |  |
| 11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.  |  |  |
| 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.  |  |  |
| 13. <input type="checkbox"/> A preliminary amendment.   |  |  |
| 14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.   |  |  |
| 15. <input type="checkbox"/> A substitute specification.  |  |  |
| 16. <input type="checkbox"/> A power of attorney and/or change of address letter.   |  |  |
| 17. <input checked="" type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 – 1.825. (1 CD in CRF format containing Sequence Listing) |  |  |
| 18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).  |  |  |
| 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).  |  |  |

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|   |              |   |            |   |              |
|---|--------------|---|------------|---|--------------|
| U.S. APPLICATION NO. (if known, see 37 CFR 1.5)<br><b>10/559,951</b>  |              | INTERNATIONAL APPLICATION NO.<br><b>PCT/CN2003/000335</b>                     |            | ATTORNEY'S DOCKET NUMBER<br><b>514572001800</b> |              |
| 20. <input checked="" type="checkbox"/> Other items or information: Copy of Notification of Missing Requirements, etc. (2 pages); Copy of Declaration w/Power of Attorney (2 pages); Response to Notification of Missing Requirements, etc. (3 pages); Statement to Support Filing and Submission, etc. (2 pages); Paper Copy of Sequence Listing (6 pages); and Return Receipt Postcard  |              |   |            |   |              |
| The following fees have been submitted  |              |   |            | CALCULATIONS                                    | PTO USE ONLY |
| 21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a)) ..... \$300   |              |   |            | \$  |              |
| 22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c))<br>If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) ..... \$0<br>All other situations ..... \$200  |              |   |            | \$  |              |
| 23. <input type="checkbox"/> Search fee (37 CFR 1.492(b))<br>If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) ..... \$0<br>Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority ..... \$100<br>International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB ..... \$400<br>All other situations ..... \$500 |              |   |            | \$  |              |
| <b>TOTAL OF 21, 22 and 23 =</b>   |              |   |            | \$ 0.00   |              |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)).<br>The fee is \$250 for each additional 50 sheets of paper or fraction thereof.   |              |   |            |   |              |
| Total Sheets  | Extra Sheets | Number of each additional 50 or fraction thereof (round up to a whole number) | RATE       |   |              |
| - 100 =   | /50 =        |   | x \$250.00 | \$  |              |
| Surcharge of \$130 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).  |              |   |            | \$ 130.00                                       |              |
| CLAIMS  | NUMBER FILED | NUMBER EXTRA  | RATE       |   |              |
| Total claims  | - 20 =       |   | x          |   |              |
| Independent claims  | - 3 =        |   | x          |   |              |
| MULTIPLE DEPENDENT CLAIM(S) (if applicable)   |              |   | +          |   |              |
| <b>TOTAL OF ABOVE CALCULATIONS =</b>  |              |   |            | \$ 130.00                                       |              |
| <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.   |              |   |            | 65.00   |              |
| <b>SUBTOTAL =</b>   |              |   |            | \$ 65.00  |              |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).   |              |   |            | \$  |              |
| <b>TOTAL NATIONAL FEE =</b>   |              |   |            | \$ 65.00  |              |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +  |              |   |            | \$  |              |
| <b>TOTAL FEES ENCLOSED =</b>  |              |   |            | \$ 65.00  |              |
|   |              |   |            | Amount to be refunded:                          | \$           |
| 65.00 DA  |              |   |            | Amount to be charged                            | \$           |

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

- a. ☐ A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b. ☒ Please charge my Deposit Account No. 03-1952 in the amount of \$ 65.00 to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit  
Account No. 03-1952. A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information  
should not be included on this form.** Provide credit card information and authorization on PTO-2038

**NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be  
filed and granted to restore the International Application to pending status.**

SEND ALL CORRESPONDENCE TO:

Peng Chen  
MORRISON & FOERSTER LLP  
12531 High Bluff Drive  
Suite 100  
San Diego, California 92130-2040  
(858) 720-5117

CUSTOMER NUMBER: 25225

  
SIGNATURE

Peng Chen  
NAME

43,543  
REGISTRATION NUMBER

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)  
10/559,951

INTERNATIONAL APPLICATION NO.  
PCT/CN2003/000335

ATTORNEY'S DOCKET NUMBER  
514572001800

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV 743883727 US,  
in an envelope addressed to: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date  
shown below.

Dated: June 27, 2006

Signature: 

(Diane Blevins)



## UNITED STATES PATENT AND TRADEMARK OFFICE

SAN DIEGO  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

|   |                                      |                                  |
|---|--------------------------------------|----------------------------------|
| U.S. APPLICATION NUMBER NO.<br>10/559,951 | FIRST NAMED APPLICANT<br>Shengce Tao | ATTY. DOCKET NO.<br>514572001800 |
|---|--------------------------------------|----------------------------------|

25225 *PX*  
MORRISON & FOERSTER LLP  
12531 HIGH BLUFF DRIVE  
SUITE 100  
SAN DIEGO, CA 92130-2040

|  |  |               |
|--|--|---------------|
| INTERNATIONAL APPLICATION NO.<br>PCT/CN03/00335  |  |               |
| <table border="1"> <tr> <td>I.A. FILING DATE<br/><i>at</i> 05/09/2003</td> <td>PRIORITY DATE</td> </tr> </table> | I.A. FILING DATE<br><i>at</i> 05/09/2003 | PRIORITY DATE |
| I.A. FILING DATE<br><i>at</i> 05/09/2003   | PRIORITY DATE                            |               |

CONFIRMATION NO. 1502  
371 FORMALITIES LETTER  
  
\*OC000000018668191\*

Date Mailed: 05/03/2006

### NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Copy of the International Application filed on 12/09/2005
- Copy of the International Search Report filed on 12/09/2005
- Preliminary Amendments filed on 12/09/2005
- U.S. Basic National Fees filed on 12/09/2005
- Specification filed on 12/09/2005
- Claims filed on 12/09/2005
- Abstracts filed on 12/09/2005
- Drawings filed on 12/09/2005

The applicant needs to satisfy supplemental fees problems indicated below.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.492(h) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.

#### SUMMARY OF FEES DUE:

Total additional fees required for this application is \$130 for a Large Entity:

*DB*

• **\$130 Surcharge.**

- This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 CFR 1.821(c) Applicant must provide an initial paper or compact disc copy of the "Sequence Listing", **as well as an amendment specifically directing its entry into the application** and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000).
- A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000). Applicant must provide an initial computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If applicant desires the sequence listing in the instant application to be identical with that of another application on file in the U.S. Patent and Trademark Office, such request in accordance with 37 CFR 1.821(e) may be submitted in lieu of a new CRF.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

**For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:**

- For Rules Interpretation, call (571) 272-0951
- For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patentin Software Program Help @ [ebc@uspto.gov](mailto:ebc@uspto.gov)

**ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.**

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

PAULETTE R KIDWELL

Telephone: (703) 308-9140 EXT 216

**PART 1 - ATTORNEY/APPLICANT COPY**

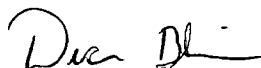
| U.S. APPLICATION NUMBER NO. | INTERNATIONAL APPLICATION NO. | ATTY. DOCKET NO. |
|-----------------------------|-------------------------------|------------------|
| 10/559,951                  | PCT/CN03/00335                | 514572001800     |

**CERTIFICATE OF MAILING BY "EXPRESS MAIL"**

Express Mail Label No.: EV 743 883 727 US

Date of Deposit: June 27, 2006

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail PostOffice to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Diane Blevins

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the application of:

Shengce TAO et al.

Application No.: 10/559,951

Confirmation No.: 1502

International Filing Date: May 9, 2003

Art Unit: Not Yet Assigned

For: METHODS AND COMPOSITIONS FOR  
OPTIMIZING MULTIPLEX PCR PRIMERS

Examiner: Not Yet Assigned

**RESPONSE TO NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C.  
371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)**

MAIL STOP PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is in response to the Notification of Missing Requirements Under 35 U.S.C. 371 In The United States Designated/Elected Office (DO/EO/US), mailed May 3, 2006, for which a response is due on July 3, 2006. Accordingly, this response is timely filed.

Please enter the following Sequence Listing and remarks.

In the Sequence Listing:

Please insert the attached paper copy of the Sequence Listing (pages 1-6) after the Abstract in the above-mentioned application. A computer readable form copy (labeled “CRF”) of the Sequence Listing accompanies this response.

## REMARKS

The undersigned hereby states that the computer readable form copy (labeled "CRF") of the Sequence Listing and the paper copy of the Sequence Listing (pages 1-6), submitted in accordance with 37 C.F.R. § 1.825(a) and (b), respectively, are the same and contain no new matter. Accordingly, entry of the Sequence Listing into the above-captioned case is respectfully requested.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 514572001800. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

Date: June 27, 2006

By: \_\_\_\_\_

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